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APPLICATION

FOR UNITED STATES LETTERS PATENT

SPECIFICATION

TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN THAT I, **KEVIN MATHIS**, a citizen of UNITED STATES OF AMERICA, have invented a new and useful **MOVABLE WRENCH HANDLE ASSEMBLY** of which the following is a specification:

MOVABLE WRENCH HANDLE ASSEMBLY

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to hand tools and more particularly pertains to a new movable wrench handle assembly for facilitating comfortable grasping of a wrench while minimizing interference of the comfortable handle structure with the opposing end couplers of the wrench.

Description of the Prior Art

The use of hand tools is known in the prior art. U.S. Patent No. 3,282,136 describes an adjustable wrench having adjustable head portions. Another type of hand tool is U.S. Patent No. 4,151,763 disclosing an adjustable wrench having a longitudinal adjustment structure extending through the handle. U.S. Patent No. 4,593,585 discloses an adjustable wrench having pivoting ends and a longitudinal depression along the handle. U.S. Patent No. 6,378,400 discloses a detachable handle socket ratchet wrench system.

While these devices fulfill their respective, particular objectives and requirements, they all include the common fault of providing a relatively thin handle for gripping as it is desirable to

have relatively thin end portions to facilitate engagement of the end portions to nuts and the like, particularly in tight spaces. The need remains for a wrench that provides a comfortable gripping portion or handle that can be moved along a length of a wrench to inhibit interference between the handle and a work piece during use.

SUMMARY OF THE INVENTION

The present invention generally comprises a wrench having a pair of end portions and a medial portion extending between the end portions. A handle member is coupled to the wrench such that the handle member is slidable along the medial portion. A locking assembly holds the handle member in place during use.

There has thus been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the invention that will be described hereinafter and which will form the subject matter of the claims appended hereto.

The objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be better understood and objects other than those set forth above will become apparent when consideration is

given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

Figure 1 is a perspective view of a new movable wrench handle assembly according to the present invention.

Figure 2 is a partial cut-away top view of an embodiment of the present invention.

Figure 3 is partial cut-away top view of an embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference now to the drawings, and in particular to Figures 1 through 3 thereof, a new movable wrench handle assembly embodying the principles and concepts of the present invention and generally designated by the reference numeral 10 will be described.

As best illustrated in Figures 1 through 3, the movable wrench handle assembly 10 generally comprises a wrench 12 that has a pair of end portions 14,16 and a medial portion 18 extending between the end portions 14,16. A handle member 20 is coupled to the wrench 12 such that the handle member 20 is slidable along the medial portion 18. Locking means 22 are provided for holding the handle member 20 in a position adjacent to a selectable one of the end portions 14,16 of the wrench 12.

The locking means 22 is most preferably formed by a plurality of indentations 24 in the medial portion 18 of the wrench 12 and at least one locking member 26 extendably coupled to the handle member 20. Minimally, a pair of indentations 24 are provided with

one being positioned at each end of the medial portion of the wrench 12. Biasing means 28 such as springs 66 are provided for urging the locking member 26 outwardly from the handle member 20 such that the locking member 26 engages a selectable one of the indentations 24 to hold the handle member 20 adjacent to a selected one of the end portions 14,16.

In an embodiment, the locking member 26 has a convex surface 30 for abutting a complimentary surface 32 of a selected indentation 24. Thus, the locking member 26 is slidable along the medial portion 18 as the handle member 20 is moved by application of lateral force in excess of a threshold frictional force between the locking member 26 and the selected indentation 24.

Most preferably, the indentations 24 are arranged into oppositional indentation pairs 34,36. Each oppositional indentation pair 34,36 is positioned adjacent to an associated one of the end portions 14,16. Correspondingly, a pair of locking members 26 are extendably coupled to the handle member 20. The locking members 26 are oppositionally positioned for engaging a selectable oppositional indentation pair 34,36.

Preferably, end portion 14 forms an open-ended wrench coupler 38 and end portion 16 forms a box-ended wrench coupler 40. Typically, each end portion is sized similarly. Alternately, as shown in Figure 2, both end portions may be closed but each end portion providing a unique interior shape. As shown in Figure 2, a six point box end is provided opposite a twelve point box end.

The handle member 20 has a pair of raised end lips 42 such that the handle member 20 is designed for inhibiting slipping of a hand grasping the handle member 20.

The medial portion 18 of the wrench 12 has a non-circular cross-section, most preferably rectangular for comfort and ease of manufacture. The handle member 20 includes a bore 44 extending therethrough for receiving the medial portion 18. The bore 44 has a non-circular cross-section complimentary in shape to the cross-section of the medial portion 18 for inhibiting rotation of the handle member 20 around the medial portion 18 during use.

In use, the handle member is positioned by the user adjacent to the end portion opposite the end portion the user desires to use. The wrench is then used in conventional fashion.

With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable

modifications and equivalents may be resorted to, falling within the scope of the invention.